

Campbell Lake Fire-Columbia National Wildlife Refuge
BURNED AREA EMERGENCY STABILIZATION AND REHABILITATION (ESR) PLAN

AGENCY/UNIT: Columbia National Wildlife Refuge

LOCATION: Othello, Adams County, Washington

DATE: August 15, 2003

PREPARED BY: Columbia NWR ESR Staff

Submitted By: Robert Flores, Project Leader _____ Date: _____

REVIEW AND APPROVAL

FWS, Columbia NWR

I. Suppression Operations Funding Approval (check one box below):

- * ☐ Approved
- * ☐ Approved with Revision (see attached)
- * ☐ Disapproved

Robert Flores, Project Leader

Date

II. Burned Area Rehabilitation (9262) Funding Approval (check one box below):

- * ☐ Approved
- * ☐ Approved with Revision (see attached)
- * ☐ Disapproved

Robert Flores, Project Leader

Date

Regional Fire Management Coordinator concurrence that the plan fits the technical definition for use of Burned Area Rehabilitation finding.

Regional Fire Management Coordinator, Region 1

Date

III. Agency Operational Base Funding Approval (check one box below):

- * ☐ Approved
- * ☐ Approved with Revision (see attached)
- * ☐ Disapproved

Robert Flores, Project Leader

Date

III. Burned Area Rehabilitation Funding Approval (check one box below):

- * ☐ Approved
- * ☐ Approved with Revision (see attached)
- * ☐ Disapproved

Regional Director, Region 1

Date

EXECUTIVE SUMMARY

Introduction

This plan has been prepared in accordance with Department of the Interior and U.S. Fish and Wildlife Service policy and the Columbia National Wildlife Refuge Fire Management and Integrated Pest Management Plans. This plan provides burned area emergency stabilization and rehabilitation (ESR) recommendations for all federal lands burned within the Campbell Lake Fire perimeter administered by the U.S. Fish and Wildlife Service. The primary objectives of the Campbell Lake Fire Burned Area Emergency Stabilization and Rehabilitation (ESR) Plan are:

Emergency Stabilization

- " To prescribe cost effective post-fire stabilization measures necessary to protect human life, property, and critical cultural and natural resources.
- " To promptly stabilize and prevent further degradation to affected resources on lands within the fire perimeter and mitigate damages caused by fire suppression operations in accordance with approved land management plans and policies, and all relevant federal, state, and local laws and regulations.

Rehabilitation

- " To repair or improve lands unlikely to recover naturally from severe wildland fire damage by emulating historic or pre-fire ecosystem structure, function, diversity, and dynamics according to approved land management plans.

This plan addresses the emergency stabilization and rehabilitation needs of fire suppression and fire related damages to lands administered by the Service on the Columbia National Wildlife Refuge (CNWR). Based upon field assessments conducted by CNWR staff between July 26 and August 8, 2003 an analysis was conducted to include: suppression impacts, watershed stability, archaeological and vegetation impacts, and fire effects on known threatened and endangered (T&E) species and their habitats. The Wildlife Biologist evaluated and assessed fire damages and suppression impacts to vegetative resources, including threatened and endangered (T&E) species, and identified values at risk associated with vegetative losses. An archeologist from the Hanford Reach National Monument conducted initial inventories of suppression impacts for potential damage to cultural sites during the last week of August, after the first version of this plan in a different format was completed.

Individual resource Burned Area Assessment Reports produced by these specialists are in Appendix I. The individual treatments specifications including the effectiveness monitoring identified in the assessments can be found in Part F. A summary of the costs is in Part E. Appendix II contains the National Environmental Policy Act (NEPA) compliance documentation summary. Appendix III contains the ESR Plan maps. Appendix IV contains photo documentation. Appendix V contains supporting documentation.

Fire Background

The Campbell Lake Fire, Number 13510-9261-A481, started on July 26, 2003 at approximately 1400 hours by a hot catalytic converter parked over tall cheatgrass on private land adjacent to Columbia NWR. When the CNWR Fire Crew received the report from MACC of a wildfire at 1430, a column of smoke was visible from the CNWR fire cache. The fire grew rapidly with high temperatures, low humidity, and 6 mph winds, and inaccessibility due to a wetland, wire fences, and rocky terrain. Firefighters from Adams and Grant counties, Columbia NWR, and Hanford Reach NM were on the scene, with 19 units (mostly 4-wheel drive brush trucks) responding. A private SEAT also responded and made water drops on the southwest flank. Ground disturbance within the shrub-steppe plant community was substantial given the fire location and soil type, negatively impacting native vegetation and micro-biotic crusts.

The Campbell Lake Fire was contained at approximately 1800 hours on July 26, 2003, when county resources were released.

The CNWR ESR Team, tasked with evaluation of short and long-term rehabilitation needs, developed this plan to address the following issues:

- * ☐ Cultural and natural resource values impacted by the fire or fire suppression actions.
- * ☐ Rehabilitation requirements established by Federal law, policies, and relevant Department of the Interior resource management mandates.
- * ☐ Rehabilitation requirements established by state laws, policies, and regulations.
- * ☐ Implementation of treatments in a timely manner, prior to the first damaging rains.

Fire Damages and Threats to Human Safety and Natural and Cultural Resources

The Campbell Lake Fire burned 260 acres within a perimeter of approximately 3.4 miles. Approximately 47 acres were on Service lands and the remaining 213 acres were on private lands. The 47 acres burned on CNWR is included within area designated a National Natural Landmark (NNL) and Important Bird Area (IBA). Fire suppression impacts included: approximately 2.8 total miles of existing and newly-created roads, with 1.7 miles on Refuge lands, damage to the Refuge boundary fence, and the potential spread of perennial pepperweed, kochia, Russian thistle, Russian knapweed, tumble mustard and cheatgrass by suppression forces and actions.

A majority of the Refuge portion of the fire has been mapped by the BAER Team for burn severity. Ten percent of the fire area is classified as moderate burn severity. This attests to the fire's spread through areas of light fuels but long residence time where shrubs occurred. Most of the soils examined were not water repellent. Therefore, an overall water yield increase due to the fire is expected to be minor and not exacerbate flooding events, except possibly if there is rapid snow melt.

Almost all plant and litter cover that was present in the burn area has been consumed by the fire. The loss of vegetative cover has exposed fine sandy and silty soils to ablation. Nearly all soils within the burn area have a fairly high risk of wind erosion, however, certain soils within the burn area are especially susceptible.

The ESR Team conducted field surveys after the fire to identify impacts and compile the following recommendations for rehabilitation of affected lands:

Fire Suppression Treatments:

- * ☐ Inventory created suppression roads for potential archeological sites prior to rehabilitation
- * ☐ Rehabilitate 0.75 miles of existing road and all new roads created during suppression activities
- * ☐ Treat invasive weeds and revegetate 50 acres (47 burned Refuge acres and buffer along boundary with private land)
- * ☐ Repair the Refuge boundary fence

Emergency Fire Stabilization and Rehabilitation Treatments:

- * ☐ Conduct cultural resource damage assessment of known/documented sites
- * ☐ Control unburned non-native invasive plants
- * ☐ Protect ecological integrity of native shrub-steppe plant communities through native grass seeding
- * ☐ Monitor seeding effectiveness for site stabilization
- * ☐ Control noxious weeds and invasive plant species
- * ☐ Protect native shrub-steppe plant communities from grazing access by replacing portions of the boundary fence that were weakened by the fire.

Specifications were developed for all actions meeting the requirements of fire suppression or Emergency Fire Stabilization and Rehabilitation (ESR) funding.

Other resource impacts assessed as a result of the Campbell Lake Fire included a review of cultural sites impacted, and impacts to vegetation resources. The cultural resource assessment mentions the discovery of an historic road at the edge of the burned area. Prior to rehabilitation of that area, an archeological inventory will be required. A cultural resource damage assessment of the burn area still needs to be completed as quickly as possible.

Federal T&E plant species listed as occurring or having habitat within Grant and Adams County have not been previously mapped within the fire area. Listed wildlife species existing within the fire area include Washington ground squirrels.

This area is habitat for the Washington ground squirrel, a federal and state candidate species. There are known historic burrows along the entry road. Washington ground squirrels are inactive during most of the year, only appearing above ground for a few months from late winter to early summer. Although no individuals are presumed affected, ground squirrels rely heavily on seeds produced from native forbs and grasses, so reseeding to ensure quality habitat and forage for ground squirrels is necessary.

Vegetation resources provide valuable wildlife forage and habitat, watershed protection, and comprise a visually pleasing landscape. Generally speaking, bunchgrass communities experienced greater than 80% vegetative loss. On more than 70% of the fire area, complete consumption of vegetative resources was observed. Most shrub, grass and forb species and organic material on the soil surface was consumed indicating extreme fire intensity. The primary vegetative concerns are the recovery of the shrub-steppe plant community and control of non-native species and noxious weed invasion.

This BAER Plan is the initial funding request for Emergency Fire Rehabilitation funds. The Emergency Fire Rehabilitation funding for this plan extends over a one year period from the date of plan approval. At the conclusion of the funding period, a final Accomplishment Report will be due to the approval authority. The Accomplishment Report will document the funding received, (initial and supplemental funding), treatments installed, the effectiveness of the installed treatments and the results of monitoring activities.

Columbia National Wildlife Refuge Management Requirements

Establishing legislation designated CNWR "...as a refuge and breeding ground for migratory birds and other wildlife..." The uniqueness and biological diversity of the CNWR is established by three elements of land management. First, this area was set aside from irrigated agriculture development during planning stages of the Columbia Basin Irrigation Project due to its strategic location along the Potholes Canal and Crab Creek. Second, it lies within a mostly rocky area that has maintained the shrub-steppe component in a relatively large block with State-managed and private lands. Third, unlike surrounding properties the Refuge lands have not been intentionally grazed for nearly 25 years, protecting bunchgrass and sagebrush stands from degradation. Within its mosaic of habitats, the Refuge supports a wealth of increasingly uncommon native plant and animal species. Because of the high diversity of native plant and animal species, the well developed microbiotic crusts and significant breeding populations of many steppe and shrub-steppe dependent species, the FWS has been tasked to preserve and protect these lands for future generations. Primary goals for the Refuge include:

- * □ Provide habitat for migratory birds, especially ducks, geese, swans, and cranes, during the spring/fall staging and winter periods.
- * □ Protect, restore and develop habitats for and otherwise support the recovery of federally-listed endangered and threatened species, and help prevent the listing of species of management concern.
- * □ Protect and restore a diversity of native habitats for indigenous fish, wildlife and plants within the Columbia Basin ecoregion.
- * □ Provide high-quality opportunities for wildlife-dependent recreation and environmental education to enhance public appreciation, understanding, and enjoyment of fish, wildlife, habitats, and cultural resources.

Emergency Stabilization

Emergency Stabilization actions for the Campbell Lake Fire include:

- " Ecological stabilization through seeding of native species to prevent the establishment and reestablishment of non-native invasive plants.
- " Cultural inventories of suppression impacted areas and known cultural sites to prevent further degradation or impacts.

- " Noxious weed and invasive species control to protect ecological integrity of the site.

Rehabilitation

- " Wildland fire activity damage suppression including access road, control lines and fence repair.

The following statements in the approved CNWR Fire Management Plan direct the development of the proposed burned area rehabilitation treatments funded through the Burned Area Stabilization and Rehabilitation funds:

- " Prior to the completion of an ESR, rehabilitation may be initiated by the Incident Commander, FMO, or Refuge Manager. A set of standard treatments for slopes, channels, and roads are pre-approved and listed in the Fire Management Handbook on pg. 5.2-1. If emergency rehabilitation measures are needed or if rehabilitation is needed to reduce the effects of a wildland fire then the Refuge can request appropriate funding through the Burned Area Emergency Rehabilitation (BAER) fund. ESR plans for each fire will be reviewed by the Fire Analysis Committee. A final plan will be submitted to Region for establishing an account. Rehabilitation should be initiated prior to complete demobilization or early the following season.
- " Protect and restore a diversity of native habitats for indigenous fish, wildlife and plants within the Columbia Basin ecoregion.
- " Protect, restore and develop habitats for and otherwise support the recovery of federally-listed endangered and threatened species, and help prevent the listing of species of management concern.

TABLE OF CONTENTS

REVIEW AND APPROVAL	<u>ii</u>
EXECUTIVE SUMMARY	<u>iv</u>
TABLE OF CONTENTS	<u>1</u>
PART A - FIRE LOCATION AND BACKGROUND INFORMATION	<u>2</u>
PART B - NATURE OF PLAN	<u>3</u>
PART C - EMERGENCY STABILIZATION AND REHABILITATION ASSESSMENT	<u>4</u>
PART D - TEAM ORGANIZATION, MEMBERS, AND RESOURCE ADVISORS	<u>5</u>
PART E - SUMMARY OF ACTIVITIES AND COSTS	<u>7</u>
PART F - INDIVIDUAL TREATMENT SPECIFICATIONS	<u>9</u>
PART G - POST-REHABILITATION REQUIREMENT	<u>26</u>
APPENDIX I - ESR BURNED AREA ASSESSMENT REPORTS	<u>27</u>
APPENDIX II - ENVIRONMENTAL COMPLIANCE	<u>34</u>
APPENDIX III - FIRE MAP	<u>38</u>
APPENDIX IV - PHOTO DOCUMENTATION	<u>39</u>

PART A - FIRE LOCATION AND BACKGROUND INFORMATION

Fire Name	Campbell Lake
Fire Number	13510-9261-A481
Agency Unit	Columbia National Wildlife Refuge
Region	1
State	WA
County(s)	Adams, Grant
Ignition Date/Cause	7/26/2003 - Human Caused
Zone	CWICC
Date Contained/ Controlled	7/26/2003
Jurisdiction- FWS	47 Acres
Total Acres	260 Acres

PART B - NATURE OF PLAN

I. Type of Plan (check one box below)

<input type="checkbox"/>	Emergency Stabilization
<input type="checkbox"/>	Rehabilitation
<input type="checkbox"/>	Both Emergency Stabilization and Rehabilitation

II. Type of Action (check one box below)

<input type="checkbox"/>	Initial Submission
<input type="checkbox"/>	Updating or Revising the Initial Submission
<input type="checkbox"/>	Supplying Information of Accomplishment to Date on Work
<input type="checkbox"/>	Different Phase of Project
<input type="checkbox"/>	Final Accomplishment Report (To Comply with the Closure of the 9262 Account)

PART C - EMERGENCY STABILIZATION AND REHABILITATION ASSESSMENT

Emergency Stabilization Objectives

- " Locate and stabilize severely burned areas which pose a direct threat to human life, property or critically important cultural and/or natural resources.
- " As practical and necessary, restore natural conditions to areas disturbed by fire suppression actions.
- " Prevent the establishment of non-native invasive plants.
- " Prevent degradation of unburned areas within the fire perimeter before spring greenup by wild ungulates.

Suppression Rehabilitation Objectives

Rehabilitate suppression impacts to Columbia Basin shrub-steppe plant communities with native species as specified in the CNWR Fire Management and Integrated Pest Management Plans.
Repair or replace burned and damaged infrastructure along the Refuge boundary.

PART D - TEAM ORGANIZATION, MEMBERS, AND RESOURCE ADVISORS

I. Approval Authorities

U.S. Fish and Wildlife Service- Columbia National Wildlife Refuge

Activities Requiring Local Agency Administrator Approval		
Fire Suppression Damages (charged to Fire Suppression)	Status	Cost
Suppression Vehicle Damage Stabilization	O	\$7073
Cultural Resources Damage Assessment	C	\$300
Fire Damage Assessment	C	\$600
Subtotal		
		\$7973

Status: C=Completed,; O=Ongoing; P=Planned

Activities Requiring Regional/State/Headquarters Approval		
Emergency Stabilization and Rehabilitation (charged to BAR)	Status	Cost
Noxious Weed and Invasive Species Control	P	\$ 5800
Ecological stabilization seeding	P	\$ 7000
Noxious weed control and revegetation effectiveness monitoring	P	\$ 200
Cultural Resources Damage Assessment-Stabilization	P	\$ 700
Fence Replacement	P	\$ 5341
NEPA Categorical Exclusion	P	\$ 300
Subtotal		
		\$19341

Status: C=Completed,; O=Ongoing; P=Planned

Total Emergency Stabilization and Rehabilitation Costs	\$27314
--	---------

II. Burned Area Emergency Stabilization and Rehabilitation (ESR) Team Members:

Position	Team Member (Agency)
Team Leader	Randy Hill- USFWS-CNWR
Public Information	
Operations	Mike Muehlbauer- USFWS-CNWR
NEPA Compliance & Planning	Randy Hill- USFWS-CNWR
Hydrologist	
Soil Scientist	
Geologist	
Cultural Resources/Archeologist	Jenna Gaston- USFWS- HRNM
Vegetation Specialist	Randy Hill- USFWS-CNWR
Wildlife Biologist	Randy Hill- USFWS-CNWR
GIS Specialist	Eric Kelchlin and Carson Keeler- USFWS-CNWR
Documentation/Computer Specialist	
Photographer	Randy Hill- USFWS-CNWR

III. Resource Advisors: (Note: Resource Advisors are individuals who assisted the ESR Team with the preparation of the plan. See Part H for a full list of agencies and individuals who were consulted or otherwise contributed to the development of the plan.

Name	Affiliation
Gregory Zoppetti	(Detail to Columbia NWR) Assistant Fire Management Officer
Robert Flores	Columbia NWR, Project Leader
David Smith	Hanford Reach NM, Natural Resource Specialist
Rob Larrañaga	Columbia NWR, Deputy Project Leader
Eric Hagen	Hanford Reach NM, Fire Management Officer

PART E - SUMMARY OF ACTIVITIES AND COSTS

The summary of activities and cost table below identifies emergency stabilization and rehabilitation costs charged or proposed for funding from Suppression Operations, Burned Area Rehabilitation, agency operation, and other funding sources. Expenditures are displayed in the total cost column. They are coded with the appropriate cost authority. The total cost of the rehabilitation effort to date, excluding the costs absorbed by the fire account (fire crews, labor, and associated overhead) is displayed as either Suppression Operations (F), Burned Area Rehabilitation (BAR), Emergency Watershed Protection (EWP), or Agency Operations/Other (O/OP) or other.

Fire Name: Campbell Lake

Specification Cost Summary

Account		Dollars	Dollars
Fire Suppression Activity Damage Rehabilitation (F)			\$7,973
Burned Area Rehabilitation (BAR)			\$19,341
Emergency Stabilization		\$	
Rehabilitation		\$ 19,341	
Emergency Watershed Protection (EWP)			
Agency Operations/Other (OP/O)			
Funding Summary - Estimated Total			\$27,314

PART E - SUMMARY OF EMERGENCY STABILIZATION/ACTIVITIES - COST SUMMARY TABLE - Campbell Lake Fire

Spec #	Title	Unit	Unit Cost	# of Units	Cost by Funding Source				Implementation Method	Specification Total
					F	BAR	EWP	OP/O		
1	Suppression Vehicle Damage Rehabilitation	Mile	\$ 3,536.50	2	\$ 7,073				FC, C, P	\$ 7,073
2	Cultural Resources Damage Assessment-Suppression	Survey	\$ 300.00	1	\$ 300				P	\$ 300
3	Fire Damage Assessment	Survey	\$ 300.00	2	\$ 600				P	\$ 600
4	Ecological Stabilization-Native Grass and Sagebrush Seeding	Acre	\$ 146.00	50		\$ 7,300			C, P	\$ 7,300
5	Noxious Weed/Invasive Species Control	Acre	\$ 116.00	50		\$ 5,800			C, P	\$ 5,800
6	Cultural Resources Damage Assessment-Stabilization	Survey	\$ 700.00	1		\$ 700			P	\$ 700
7	Boundary Fenceline Replacement	Foot	\$ 0.79	6758		\$ 5,341			P	\$ 5,341
8	Noxious Weed and Revegetation Effectiveness Monitoring	Acre	\$ 4.00	50		\$ 200			P	\$ 200
TOTAL COST					\$ 7,973	\$ 19,341	\$ 0	\$ 0		\$ 27,314
COST: F1=Suppression Operations, BAR=Burned Area Rehabilitation, EWP=Emergency Watershed Protection, OP/O=Agency Operations Funding, Other METHOD: FC=Crew Assigned to Fire, C=Contract, EFC=Emergency Fire Contract, P=Agency Personnel										

**INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN**

PART F - SPECIFICATION

SPECIFICATION TITLE:	Suppression Line Rehabilitation	JURISDICTIONS:	USFWS-CNWR
PART E LINE ITEM:	#1- Suppression vehicle damage rehabilitation	FISCAL YEAR:	2003
ESR REFERENCE #:	6.2.13 Wildland Fire Suppression Activity Damage	SPECIFICATION TYPE:	FS

I. WORK TO BE DONE

- 1. General Description:** Rehabilitation of approximately 1.7 miles of suppression-associated damage is necessary to protect habitats from noxious weed infestation and to minimize fragmentation of ecological areas. Monitoring of suppression line rehab is necessary to determine the need for future exotic plant mitigation needs. Soils are currently too powdery for immediate rehabilitation therefore treatments should be delayed until fall of 2003 until soil conditions and growing conditions are favorable to maximize success of rehabilitation actions. Immediate stabilization was performed as post-fire rehab.
 - 2. Location (Suitable) Sites:** See Appendix III and photo documentation section. Within and adjacent to the fire perimeter of the Campbell Lake Fire, and the access road used for the fire suppression.
 - C. Design/Construction Specifications:**
 - Return soil in side-cast berms back into center profile of disturbed areas. Suppression lines will be treated using a tractor and/or 4-wheeler with disk/harrow to return and recontour disturbed areas back to the natural land profile and break up compaction to a 6 inch depth.
 - Water rills will be constructed on lands with slopes greater than 5%.
 - Straw will be hauled in and scattered on surface of newly created road perimeter to prevent wind erosion.
 - Straw mulch will be watered to stabilize and prevent blowoff.
 - Gravel existing entry road that was eroded during suppression access and used for suppression line stabilization.
 - Repair boundary fence where cut for suppression access.
 - Reseed disturbed lands with Columbia Basin derived native seed as part of ecological stabilization. Contractor-purchased seed will be tested for purity and germination rates. Contractor will provide written evidence (seed label and letter) that seed conforms to the origin, purity and germination requirements in the specification. Test methods specified in the *Rules for Testing Seeds, Proceedings of the Association of Official Seed Analysts* will be acceptable for determining the germination rate.
- Seed Used (overall seeding project)
- | | | |
|--|------------------|-----|
| Bluebunch wheatgrass (<i>Pseudoroegneria spicata</i>) | 5 lbs./ac. PLS | 62% |
| Basin wildrye (<i>Elymus cinereus</i>) bottom slopes | 5 lbs./ac. PLS | 25% |
| Needle and thread (<i>Hesperostipa comata</i>) sandy areas | 2.5 lbs./ac. PLS | 12% |
| Wyoming Big sagebrush (<i>Artemisia tridentata</i> var. <i>wyomingensis</i>) | 0.1 lbs/ac PLS | 01% |
- D. Purpose of Treatment Specification:** Prevent surface and gully erosion on lands disturbed by suppression vehicle driving.
- E. Treatment Effectiveness Monitoring:** Visually inspect line after rain events and promptly correct any erosion problems. Monitor seeding effectiveness and retreat areas as needed to re-establish native grass cover and prevent expansion of non-native invasive species.

II. LABOR, MATERIALS AND OTHER COST

PERSONNEL SERVICES (Grade @ cost/hour X # hours X fiscal year = cost/item) Do not include contract personnel costs here - see contract services below	COST/ITEM
WG-8 @ \$28/hour x 20 hours x 1 fiscal year	F
WG-6 @ \$22/hour x 20 hours x 1 fiscal year	F
GS-5 @ \$20/hour x 80 hours x 1 fiscal year	F
GS-4 @ \$15/hour x 40 hours x 1 fiscal year	F
TOTAL PERSONNEL SERVICE COST	F
EQUIPMENT PURCHASE, LEASE OR RENTAL (item @ cost/hour or day X #hours or days X fiscal year = cost) Do not include contract personnel costs here -see contract services below	COST/ITEM
Water truck @ \$80/hour x 10 hours	F

Road grader @ \$65/hour x 10 hours x 1 fiscal year	F
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	F
MATERIALS AND SUPPLIES (item @ cost/each X quantity x fiscal year = cost)	COST/ITEM
Fuel, oil for ATVs @ \$15/day x 11 days	F
ATV tire repair and replacement @ \$248	F
TOTAL MATERIALS AND SUPPLY COST	F
TRAVEL COST (Personnel @ rate X round trips X fiscal year = cost)	COST/ITEM
4 X 4 Pickup @ 30 miles/rt x 11 round trips x .365/mile x 1 fiscal year	F
Flatbed truck @ 40 miles/rt x 3 round trips x .75/mile x 1 fiscal year	F
TOTAL TRAVEL COST	F
CONTRACT COST (Labor, equipment, and travel @ cost/hr. X hrs. X fiscal year = cost)	COST/ITEM
Gravel purchase 2 10 tons @ 280 tons/mile x .75 miles	F
Gravel delivery 10 loads @ \$75/load	F
TOTAL CONTRACT COST	F

III. SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
FY-1	mile	\$3,536.50	2	\$7,073	F	FC, P, C, T
FY-2						
FY-3						
TOTAL	mile	\$3,536.50	2	\$7,073	F	FC, P,C, T

FUNDING SOURCES:

F = Fire Suppression Account ES = Emergency Stabilization P = Agency Personnel Services

ESR = Emergency Stabilization & Rehabilitation R = Rehabilitation C = Contract

OP/O = Agency Operating or Other Account

FS = Fire Suppression

METHODS FOR COMPLETION:

FC = Crew Labor Assigned to Fire

IV. SOURCE OF COST ESTIMATE

1. Estimate obtained from 2 - 3 independent contractual sources	
2. Documented cost figures from similar project work obtained from local agency resources	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimate based upon government wage rates and materials cost.	
5. No cost estimate required - cost charged to Fire Suppression Account	F

P = Personnel Services M = Materials/Supplies

T = Travel

C = Contract

F = Fire Suppression

V. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN REPORT

List relevant documentation and cross-references within ESR Plan: Refer to Appendix I: Operations Assessment; Appendix III- Fire Map; and Appendix IV- Photo Documentation
--

INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN

PART F - SPECIFICATION

SPECIFICATION TITLE:	Cultural Resource Assessment-Suppression	Jurisdictions:	USFWS-CNWR
PART E LINE ITEM:	#2 Cultural Resource Damage Assessment- Suppression	FISCAL YEAR:	2003
ESR REFERENCE #:	6.3.1 Cultural Resources	SPECIFICATION TYPE:	ES

I. WORK TO BE DONE

<p>A. General Description: Within 90 days of control of the fire, complete a cultural resource field inventory and evaluation of sites within the area burned by the Campbell Lake Fire in order to develop a condition assessment for cultural resource compliance and rehabilitation purposes.</p> <p>B. Location (Suitable) Sites:</p> <ol style="list-style-type: none"> 1. Review all disturbed areas within the fire perimeter for cultural/archaeological resources that may have been affected during suppression actions 2. The location and description of cultural resources is sensitive and exempt from public disclosure under the Archaeological Resources Protection Act of 1979 and the Freedom of Information Act. The US Fish and Wildlife Service maintains their own cultural resource records, and may issue detailed written descriptions of sites to be evaluated by field personnel, including site descriptions, GPS and/or TSR, and cross-referenced to agency maps. <p>C. Design/Construction Specification(s):</p> <ol style="list-style-type: none"> 1. Visit and evaluate all disturbed areas within the perimeter of the burned area. These evaluations should be completed within 90 days of the control of the fire, unless extended by the affected agency as authorized by a specific time waiver approved by NIFC. 2. Site damage assessments should include post fire effects such as wind deflation, undercutting and loss of integrity, as well as wind-aided burial or erosion of surface features, increased visibility and vulnerability to looting. 3. Develop mitigation, rehabilitation or monitoring recommendations, measures and cost estimates for each site that may be threatened by burial, destabilization, exposure to the public, or erosion consequent to fire effects. 4. Initiate consultation with Tribal governments, Native American Indian communities and SHPO as required under 36 CFR 800. 5. Implement the individual site treatments through a supplemental specification for Cultural Resources General Rehabilitation and Preservation Techniques for Sites. <p>D. Purpose of Treatment Specification: This action is necessary to meet legislative mandates under Section 106 of the National Historic Preservation Act and 36 CFR 800.</p> <p>E. Treatment Effectiveness Monitoring: N/A</p>
--

II. LABOR, MATERIALS AND OTHER COST

PERSONNEL SERVICES (Grade @ cost/hour X # hours X fiscal year = cost/item)		COST/ITEM
Do not include contract personnel costs here - see contract services below		
GS-11 @ \$35/hr x 7 hours x 1 fiscal year		F
TOTAL PERSONNEL SERVICE COST		
EQUIPMENT PURCHASE, LEASE OR RENTAL (item @ cost/hour or day X # hours or days X fiscal year = cost)		COST/ITEM
Do not include contract personnel costs here-see contract services below		
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST		
MATERIALS AND SUPPLIES (item @ cost/each X quantity x fiscal year = cost)		COST/ITEM
Photographic film and processing @ \$12/roll x 1 rolls		F
TOTAL MATERIALS AND SUPPLY COST		F
TRAVEL COST (Personnel @ rate X round trips X fiscal year = cost)		COST/ITEM
4 X 4 Pickup @ 120 miles/day x 1 days x .365/mile x 1 fiscal year		F
TOTAL TRAVEL COST		F

CONTRACT COST (Labor, equipment, and travel @ cost/hr. X hrs. X fiscal year = cost)	COST/ITEM
TOTAL CONTRACT COST	

III. SPECIFICATION COST SUMMARY

FISCAL

YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	Method
FY-1	survey	\$300	1	\$300	F	P
FY-2						
FY-3						
Total	survey	\$300	1	\$300	F	P

FUNDING SOURCES:

F = Fire Suppression Account

ESR = Emergency Stabilization & Rehabilitation

OP/O = Agency Operating or Other Account

EWP = Emergency Watershed Protection (NRCS)

SPECIFICATION TYPE

ES = Emergency Stabilization

R = Rehabilitation

FS = Fire Suppression

METHODS FOR COMPLETION:

P = Agency Personnel Services

C = Contract

EFC = Emergency Fire Contract

FC = Crew Labor Assigned to Fire

IV. SOURCE OF COST ESTIMATE

1. Estimate obtained from 2 - 3 independent contractual sources	
2. Documented cost figures from similar project work obtained from local agency resources:	P, M, T
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimate based upon government wage rates and materials cost.	
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services M = Materials/Supplies T = Travel C = Contract F = Fire Suppression

V. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN REPORT

List relevant documentation and cross-references within ESR Plan; Refer to Appendix I Cultural Resources Assessment and Appendix III- Fire Map.

**INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN**

PART F - SPECIFICATION

SPECIFICATION TITLE:	Fire Damage Assessment- Suppression	Jurisdictions:	USFWS- CNWR
PART E LINE ITEM:	#3 Fire Damage Assessment	FISCAL YEAR:	2003
ESR REFERENCE #:	6.2.13	SPECIFICATION TYPE:	FS

I. WORK TO BE DONE

<p>A. General Description: Within 30 days of control of the fire, complete a field inventory and evaluation of vegetation and other resources damaged by the Campbell Lake Fire suppression in order to develop a rehabilitation plan.</p> <p>B. Location (Suitable) Sites: Review all disturbed areas within the fire perimeter for damages during suppression actions.</p> <p>C. Design/Construction Specification(s):</p> <ol style="list-style-type: none"> 1. Visit and evaluate all disturbed areas within the perimeter of the burned area. These evaluations should be completed within 30 days of the control of the fire, unless extended by the affected agency as authorized by a specific time waiver approved by NIFC. 2. Damage assessments should include post fire effects such as wind, water erosion potential, and access by cattle. 3. Develop mitigation, rehabilitation or monitoring recommendations, measures and cost estimates for each site that was affected. <p>D. Purpose of Treatment Specification: This action is necessary to meet guidelines within CNWR's Fire Management and Integrated Pest Management plans.</p> <p>E. Treatment Effectiveness Monitoring: N/A</p>
--

II. LABOR, MATERIALS AND OTHER COST

PERSONNEL SERVICES (Grade @ cost/hour X # hours X fiscal year = cost/item) Do not include contract personnel costs here - see contract services below		COST/ITEM
GS-11 @ \$35/hour x 10 hours x 1 fiscal year		F
GS-8 @ \$24/hour x 10 hours x 1 fiscal year		F
TOTAL PERSONNEL SERVICE COST		F
EQUIPMENT PURCHASE, LEASE OR RENTAL (item @ cost/hour or day X # hours or days X fiscal year = cost) Do not include contract personnel costs here -see contract services below		COST/ITEM
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST		
MATERIALS AND SUPPLIES (item @ cost/each X quantity x fiscal year = cost)		COST/ITEM
TOTAL MATERIALS AND SUPPLY COST		
TRAVEL COST (Personnel @ rate X round trips X fiscal year = cost)		COST/ITEM
4 X 4 Pickup @ 20 miles/day x 1 days x .365/mile x 1 fiscal year		F
TOTAL TRAVEL COST		F
CONTRACT COST (Labor, equipment, and travel @ cost/hr. X hrs. X fiscal year = cost)		COST/ITEM
TOTAL CONTRACT COST		

III. SPECIFICATION COST SUMMARY

FISCAL						
YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	Method
FY-1	survey	\$300	2	\$600	F	P
FY-2						
FY-3						
Total	survey	\$300	2	\$600	F	P

FUNDING SOURCES:**F** = Fire Suppression Account**ESR** = Emergency Stabilization & Rehabilitation**OP/O** = Agency Operating or Other Account**EWP** = Emergency Watershed Protection (NRCS)**SPECIFICATION TYPE****ES** = Emergency Stabilization**R** = Rehabilitation**FS** = Fire Suppression**METHODS FOR COMPLETION:****P** = Agency Personnel Services**C** = Contract**EFC** = Emergency Fire Contract**FC** = Crew Labor Assigned to Fire**IV. SOURCE OF COST ESTIMATE**

1. Estimate obtained from 2 - 3 independent contractual sources
2. Documented cost figures from similar project work obtained from local agency resources:
3. Estimate supported by cost guides from independent sources or other federal agencies
4. Estimate based upon government wage rates and materials cost.
5. No cost estimate required - cost charged to Fire Suppression Account P, T

P = Personnel Services**M** = Materials/Supplies**T** = Travel**C** = Contract**F** = Fire Suppression**V. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN REPORT**

List relevant documentation and cross-references within ESR Plan: Refer to Appendix I- Assessment and Appendix III- Fire Map.

**INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN**

PART F - SPECIFICATION

SPECIFICATION TITLE:	Ecological Stabilization - Native grass seeding	JURISDICTIONS:	USFWS-CNWR
PART E LINE ITEM:	#4- Ecological Stabilization - Native grass seeding	FISCAL YEAR:	2004
ESR REFERENCE #:	6.3.2.3 Revegetation	SPECIFICATION TYPE:	ES

I. WORK TO BE DONE

- A. General Description:** Apply native seed mix in burned area to stabilize ecological integrity of native shrub steppe community, prevent invasion by noxious weeds and non-native species, and to limit erosion and stabilize soils. Includes hand collection and distribution of sagebrush seed from adjacent populations.
- B. Location (Suitable) Sites:** Fire area on CNWR lands (~50 acres) is located 5 miles north of Othello, WA, in the Quail Lake section. Reseeding should take place across the entire fire area on CNWR (47 acres) and an adjacent buffer (3 acres) to stabilize soils, limit weed invasion, and promote ecological integrity.
- C. Design /Construction Specification(s):**
Purchase native seed mix: in appropriate amounts to stabilize soils and ecological function according to the following specifications for native seed.
- Seed requirements: (50 acres total):
- | | | |
|--|------------------|-----|
| Bluebunch wheatgrass (<i>Pseudoroegneria spicata</i>) | 5 lbs./ac. PLS | 62% |
| Basin wildrye (<i>Elymus cinereus</i>) 20 ac., bottom slopes | 5 lbs./ac. PLS | 25% |
| Needle and thread (<i>Hesperostipa comata</i>) 20 ac., sandy areas | 2.5 lbs./ac. PLS | 12% |
- Seed Mixture Selection and Certification: The seed should be tested for purity and germination rates. Before accepting seed shipment the contractor must provide written evidence (seed label and letter) to the CNWR managers (Deputy Project Leader or Wildlife Biologist) that the seed conforms to the purity and germination requirements in the specification. Seed must also be source identified as originating from the Columbia Basin and should be grown in the Columbia Basin Ecoregion.
- Delivery: Deliver certified weed-free seed sold on pure live seed basis. Deliver to Columbia National Wildlife Refuge.
- Storage: Seed should be applied as soon as possible after receipt. If immediate application is not possible the seed should be stored under dry, cool conditions and protected from rodents and other wildlife. Seed also needs to be protected from dew and rain.
- Timing of Seeding Application: Seeding should occur in December, 2003, or no later than late January, 2004.
- Application Rate: Seed will be applied at the above rates, on a PLS/acre basis.
- Application Method: Seed will be applied by tractor-pulled rangeland drill and/or broadcast seeded.
- D. Purpose of Treatment Specification:** To promote ecological recovery of native shrub/steppe ecosystem, to prevent invasion by non-native species and noxious weeds, and to stabilize soils.
- E. Treatment Effectiveness Monitoring:** Monitor to determine effectiveness and if a second seeding is needed. See specification Monitor Revegetation and Seeding Effectiveness.

II. LABOR, MATERIALS AND OTHER COST

PERSONNEL SERVICES (Grade @ cost/hour X # hours X fiscal year = cost/item) Do not include contract personnel costs here - see contract services below	COST/ITEM
WG-6 @ \$22/hour x 60 hours x 1 fiscal year	\$1,320
GS-5 @ \$19/hour x 60 hours x 1 fiscal year	\$1,140
TOTAL PERSONNEL SERVICE COST	\$2,460
EQUIPMENT PURCHASE, LEASE OR RENTAL (item @ cost/hour or day X #hours or days X fiscal year = cost) Do not include contract personnel costs here -see contract services below	COST/ITEM
Tractor @ \$30/hour x 40 hours x 1 fiscal year	\$1,200
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	\$1,200
MATERIALS AND SUPPLIES (item @ cost/each X quantity x fiscal year = cost)	COST/ITEM

Grass seed @ \$58.50/acre x 50 acres x 1 fiscal year	\$ 2,925
Kitty litter @ \$2/acre x 32.5 acres x 1 fiscal year	\$ 65
Seed delivery @ \$.10/pound x 400 pounds x 1 fiscal year	\$ 40
ATV and Tractor fuel, oil, filters @ \$100/day x 5 days x 1 fiscal year	\$ 500
TOTAL MATERIALS AND SUPPLY COST	\$3,530
TRAVEL COST (Personnel @ rate X round trips X fiscal year = cost)	
COST/ITEM	
4 X 4 Pickup @ 20 miles/day x 15 days x .365/mile x 1 fiscal year	\$ 110
TOTAL TRAVEL COST	
CONTRACT COST (Labor, equipment, and travel @ cost/hr. X hrs. X fiscal year = cost)	
COST/ITEM	
TOTAL CONTRACT COST	

III. SPECIFICATION COST SUMMARY

FISCAL

YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	Method
FY-1	acres	\$146	50	\$7,300	ESR	P
FY-2						
FY-3						
Total	Acres	\$146	50	\$7,300	ESR	P

FUNDING SOURCES:

F = Fire Suppression Account

ESR = Emergency Stabilization & Rehabilitation

OP/O = Agency Operating or Other Account

EWP = Emergency Watershed Protection (NRCS)

SPECIFICATION TYPE

ES = Emergency Stabilization

R = Rehabilitation

FS = Fire Suppression

METHODS FOR COMPLETION:

P = Agency Personnel Services

C = Contract

EFC = Emergency Fire Contract

FC = Crew Labor Assigned to Fire

V. SOURCE OF COST ESTIMATE

1. Estimate obtained from 2 - 3 independent contractual sources	M,C
2. Documented cost figures from similar project work obtained from local agency resources	M
3. Estimate supported by cost guides from independent sources or other federal agencies	T
4. Estimate based upon government wage rates and materials cost.	P
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services

M = Materials/Supplies

T = Travel

C = Contract

F = Fire Suppression

V. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN REPORT

List relevant documentation and cross-references within ESR Plan: Refer to Appendix I- Vegetation Damage Assessment; Appendix III- Fire Map; and Appendix IV- Photo Documentation

**INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN**

PART F - SPECIFICATION

SPECIFICATION TITLE:	Noxious Weed-Invasive Species Control	JURISDICTIONS:	USFWS-CNWR
PART E LINE ITEM:	#5-Noxious Weed-Invasive Species Control	FISCAL YEAR:	2004
ESR REFERENCE #:	6.3.2.1 Non-native Invasive Plant Control	SPECIFICATION TYPE:	ES

I. WORK TO BE DONE

A. General Description: Control invasive weed infestations remaining within Campbell Lake Fire area prior to seed-set and maturation. Current weed species observed include perennial pepperweed (*Lepidium latifolium*), tumble mustard (*Sisymbrium altissimum*), cheatgrass (*Bromus tectorum*), Russian knapweed (*Acroptilon repens*), kochia (*kochia scoparia*), and Russian thistle (*Salsola kali*). Utilize integrated pest management techniques (herbicides, biological, mechanical and cultural control methods) as appropriate to prevent the spread and establishment of noxious weeds within the fire area. Also, suppression of these species will promote establishment of native species.

B. Location (Suitable) Sites: Control all visible noxious weed populations along roads and suppression lines within the fire area. Control sites identified include suppression lines, perennial pepperweed, Russian knapweed, kochia, and Russian thistle populations.

C. Design/Construction Specifications:

- Control noxious weeds as identified in USFWS monitoring surveys (approximately 10% of fire area -5 ac.)
- Recommended herbicide for cheatgrass, pepperweed and tumble mustard control is Plateau® (imazapic). Application at medium concentrations (5-6.0oz./acre) during late fall will minimize damage to native species. Recommended herbicide for Russian knapweed, kochia, and Russian thistle is Curtail® (clopyralid + 2,4-D) @ 2 qt/acre as a spot treatment.
- Application methods may include hand sprayer or tractor/ATV mounted sprayer. Aerial application of Plateau is preferred if environmental conditions permit.
- Winds in the area to be sprayed should be less than 5 MPH.
- A buffer of 150 feet will be adhered to around all open water or wetland areas for helicopter, 50 feet for ground application, 10 feet for backpack sprayer.
- Applicator will be state certified.
- Follow-up control in subsequent years on all new infestation sites as identified through noxious weed monitoring surveys.

D. Purpose of Treatment Specification: Protect the ecological integrity and site productivity of shrub-steppe plant communities within CNWR lands in accordance with established management plan guidelines.

E. Treatment Effectiveness Monitoring: Conduct fall and spring surveys for noxious weeds and invasive species establishment. Should new occurrences be identified, immediate action will be taken to control new infestations.

II. LABOR, MATERIALS AND OTHER COST

PERSONNEL SERVICES (Grade @ cost/hour X # hours X fiscal year = cost Do not include contract personnel costs here - see contract services below)		COST/ITEM
WG-6 @ \$22/hour x 48 hours x 1 fiscal year		\$1,056
GS-7 @ \$25/hour x 16 hours x 1 fiscal year		\$ 400
GS-11 @ \$38/hour x 12 hours x 1 fiscal year		\$ 456
TOTAL PERSONNEL SERVICE COST		\$1,912
EQUIPMENT PURCHASE, LEASE OR RENTAL (item @ cost/hour or day X #hours or days X fiscal year = cost) Do not include contract personnel costs here -see contract services below		COST/ITEM
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST		
MATERIALS AND SUPPLIES (item @ cost/each X quantity x fiscal year = cost)		COST/ITEM
Plateau® @ \$320/gallon x 2.5 gallons x 1 fiscal years		\$800
Curtail® @ \$40/gallon x 5 gallons x 1 fiscal year		\$200
Surfactant @ \$8/gallon x 1 gallon x 1 fiscal year		\$ 8
ATV fuel, oil, repairs @ \$25/day x 6 days x 1 fiscal year		\$150
TOTAL MATERIALS AND SUPPLY COST		\$1158
TRAVEL COST (Personnel @ rate X round trips X fiscal year = cost)		COST/ITEM

4 X 4 Pickup @ 20 miles/rt x 10 round trips x .365/mile x 1 fiscal years	\$730
TOTAL TRAVEL COST	\$730
CONTRACT COST (Labor, equipment, and travel @ cost/hr. X hrs. X fiscal year = cost COST/ITEM	
Herbicide application @ \$40/acre x 50 acres x 1 fiscal years	\$2,000
TOTAL CONTRACT COST	\$2,000

III. SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
FY-1	acres	\$116	50	\$5,800	ESR	P, C
FY-2						
FY-3						
TOTAL	acres	\$116	50	\$5,800	ESR	P, C

FUNDING SOURCES:

F = Fire Suppression Account

ESR = Emergency Stabilization & Rehabilitation

OP/O = Agency Operating or Other Account

EWP = Emergency Watershed Protection (NRCS)

SPECIFICATION TYPE

ES = Emergency Stabilization

R = Rehabilitation

FS = Fire Suppression

METHODS FOR COMPLETION:

P = Agency Personnel Services

C = Contract

EFC = Emergency Fire Contract

FC = Crew Labor Assigned to Fire

IV. SOURCE OF COST ESTIMATE

1. Estimate obtained from 2 - 3 independent contractual sources	
2. Documented cost figures from similar project work obtained from local agency resources	M
3. Estimate supported by cost guides from independent sources or other federal agencies	C
4. Estimate based upon government wage rates and materials cost.	P, M, T
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services M = Materials/Supplies T = Travel C = Contract F = Fire Suppression

V. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN REPORT

List relevant documentation and cross-references within ESR Plan: Refer to Appendix I-Vegetation Assessment and Appendix III-Fire Map.

**INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN**

PART F - SPECIFICATION

SPECIFICATION TITLE:	Cultural Resource Assessment-Stabilization	Jurisdictions:	USFWS-CNWR
PART E LINE ITEM:	#6 Cultural Resource Damage Assessment- Stabilization	FISCAL YEAR:	2003-2004
ESR REFERENCE #:	6.3.1 Cultural Resources	SPECIFICATION TYPE:	ES

I. WORK TO BE DONE

<p>A. General Description: Complete a cultural resource field inventory and evaluation of sites within the area burned by the Campbell Lake Fire in order to develop a condition assessment for cultural resource compliance and rehabilitation purposes.</p> <p>B. Location (Suitable) Sites:</p> <ol style="list-style-type: none"> Review all known or discovered historical and cultural sites within the fire perimeter for cultural/archaeological resources that may have been disturbed during suppression actions No known sites were discovered during the fire event however unrecorded historical sites were found during field reviews that may have been impacted by the fire. The location and description of cultural resources is sensitive and exempt from public disclosure under the Archaeological Resources Protection Act of 1979 and the Freedom of Information Act. The US Fish and Wildlife Service maintain their own cultural resource records, and may issue detailed written descriptions of sites to be evaluated by field personnel, including site descriptions, GPS and/or TSR, and cross-referenced to agency maps. <p>C. Design/Construction Specification(s):</p> <ol style="list-style-type: none"> Visit and evaluate all disturbed areas within the perimeter of the burned area on Service lands (47 acres) and within buffer areas (3 acres) planned for rehabilitation. These evaluations should be completed within 90 days of the control of the fire, unless extended by the affected agency as authorized by a specific time waiver approved by NIFC. Site damage assessments should include post fire effects such as wind deflation, undercutting and loss of integrity, as well as wind-aided burial or erosion of surface features, increased visibility and vulnerability to looting. Develop mitigation, rehabilitation or monitoring recommendations, measures and cost estimates for each site that may be threatened by burial, destabilization, exposure to the public, or erosion consequent to fire effects. Initiate consultation with SHPO as required under 36 CFR 800. Implement the individual site treatments through a supplemental specification for Cultural Resources General Rehabilitation and Preservation Techniques for Sites. <p>D. Purpose of Treatment Specification: This action is necessary to meet legislative mandates under Section 106 of the National Historic Preservation Act and 36 CFR 800.</p> <p>E. Treatment Effectiveness Monitoring: N/A</p>
--

II. LABOR, MATERIALS AND OTHER COST

PERSONNEL SERVICES (Grade @ cost/hour X # hours X fiscal year = cost/item) Do not include contract personnel costs here - see contract services below	COST/ITEM
GS-11 @ \$35/hour x 18 hours x 1 fiscal year	\$630
TOTAL PERSONNEL SERVICE COST	

EQUIPMENT PURCHASE, LEASE OR RENTAL (item @ cost/hour or day X #hours or days X fiscal year = cost) Do not include contract personnel costs here -see contract services below	COST/ITEM
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	

MATERIALS AND SUPPLIES (item @ cost/each X quantity x fiscal year = cost)	COST/ITEM
Photographic film and processing @ \$12/roll x 2 rolls	\$24
TOTAL MATERIALS AND SUPPLY COST	\$24

TRAVEL COST (Personnel @ rate X round trips X fiscal year = cost)	COST/ITEM
4 X 4 Pickup @ 125 miles/day x 1 day x .365/mile x 1 fiscal year	\$46

TOTAL TRAVEL COST	\$46
CONTRACT COST (Labor, equipment, and travel @ cost/hr. X hrs. X fiscal year = cost	COST/ITEM
TOTAL CONTRACT COST	

III. SPECIFICATION COST SUMMARY

FISCAL

<u>YEAR</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u># OF UNITS</u>	<u>COST</u>	<u>FUNDING SOURCE</u>	<u>Method</u>
FY-1	surveys	\$700	1	\$700	ES	P
FY-2						
FY-3						
Total	surveys	\$700	1	\$700	ES	P

FUNDING SOURCES:

F = Fire Suppression Account

SPECIFICATION TYPE

ES = Emergency Stabilization

METHODS FOR COMPLETION:

P = Agency Personnel Services

ESR = Emergency Stabilization & Rehabilitation

R = Rehabilitation

C = Contract

OP/O = Agency Operating or Other Account

FS = Fire Suppression

EFC = Emergency Fire Contract

EW = Emergency Watershed Protection (NRCS)

FC = Crew Labor Assigned to Fire

IV. SOURCE OF COST ESTIMATE

1. Estimate obtained from 2 - 3 independent contractual sources	
2. Documented cost figures from similar project work obtained from local agency resources	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimate based upon government wage rates and materials cost.	P, M, T
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services

M = Materials/Supplies

T = Travel

C = Contract

F = Fire Suppression

V. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN REPORT

List relevant documentation and cross-references within ESR Plan: Refer to Appendix I: Vegetation and Cultural Resources Assessments and Appendix III- Fire Map.

**INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN**

PART F - SPECIFICATION

SPECIFICATION TITLE:	Fence Replacement	Jurisdictions:	USFWS-CNWR
PART E LINE ITEM:	#7 Boundary Fence Replacement	FISCAL YEAR:	2004
ESR REFERENCE #:	6.3.2	SPECIFICATION TYPE:	ES

I. WORK TO BE DONE

A. General Description: Replace 1.28 miles of boundary fence weakened by wildfire to prevent cattle access to refuge lands, stabilize ecological integrity of native shrub steppe community, prevent invasion by noxious weeds and non-native species.

B. Location (Suitable) Sites: Fire areas on CNWR lands (~50 acres) is located 5 miles north of Othello, WA, in the Quail Lake section. Fence replacement should take place along all boundaries that burned prevent cattle access to stabilize soils, limit weed invasion, and promote ecological integrity.

C. Design /Construction Specification(s):

1. Replace 4-strand fence with 12.5 gauge barbed wire, 5 ½ foot steel posts and stays as needed.
2. Remove and dispose of damaged and weakened metal posts and wire.

D. Purpose of Treatment Specification: To restore and maintain the integrity of the Refuge boundary, prevent cattle and vehicle access to promote the ecological recovery of the native shrub/steppe ecosystem, to prevent invasion by non-native species and noxious weeds, and to stabilize soils in and around the fire area.

E. Treatment Effectiveness Monitoring: n/a

II. LABOR, MATERIALS AND OTHER COST

PERSONNEL SERVICES (Grade @ cost/hour X # hours X fiscal year = cost/item) Do not include contract personnel costs here - see contract services below		COST/ITEM
GS-5 @ \$20/hour x 227 hours x 1 fiscal year		\$4,554
TOTAL PERSONNEL SERVICE COST		\$4,554
EQUIPMENT PURCHASE, LEASE OR RENTAL (item @ cost/hour or day X #hours or days X fiscal year = cost) Do not include contract personnel costs here -see contract services below		COST/ITEM
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST		
MATERIALS AND SUPPLIES (item @ cost/each X quantity x fiscal year = cost		COST/ITEM
10 rolls- 12.5 Gauge Barbed wire @ \$42/roll x 1 fiscal year		\$420
100 - 5.5 foot steel posts @ \$2.75 each x 1 fiscal year		\$275
TOTAL MATERIALS AND SUPPLY COST		\$695
TRAVEL COST (Personnel @ rate X round trips X fiscal year = cost		COST/ITEM
4 X 4 Pickup @ 25 miles/rt x 10 round trips x .365/mile x 1 fiscal year		\$92
TOTAL TRAVEL COST		\$92
CONTRACT COST (Labor, equipment, and travel @ cost/hr. X hrs. X fiscal year = cost		COST/ITEM
TOTAL CONTRACT COST		

III. SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
FY-1	miles	\$4,173	1.28	\$5,341	ES	P
FY-2						
FY-3						
TOTAL	miles	\$4,173	1.28	\$5,341	ES	P

FUNDING SOURCES:

F = Fire Suppression Account

SPECIFICATION TYPE

ES = Emergency Stabilization

METHODS FOR COMPLETION:

P = Agency Personnel Services

ESR = Emergency Stabilization & Rehabilitation

R = Rehabilitation

C = Contract

OP/O = Agency Operating or Other Account

FS = Fire Suppression

EFC = Emergency Fire Contract

EWP = Emergency Watershed Protection (NRCS)

FC = Crew Labor Assigned to Fire

IV. SOURCE OF COST ESTIMATE

1. Estimate obtained from 2 - 3 independent contractual sources	
2. Documented cost figures from similar project work obtained from local agency resources	M
3. Estimate supported by cost guides from independent sources or other federal agencies	T
4. Estimate based upon government wage rates and materials cost.	P
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services

M = Materials/Supplies

T = Travel

C = Contract

F = Fire Suppression

V. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN REPORT

List relevant documentation and cross-references within ESR Plan: Refer to Appendix I: Vegetation and Operations Assessment and Appendix III- Fire Map.

**INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION PLAN**

PART F - SPECIFICATION

SPECIFICATION TITLE:	Noxious Weed and revegetation effectiveness monitoring	Jurisdictions:	USFWS-CNWR
PART E LINE ITEM:	#8 Noxious weed and revegetation effectiveness monitoring	FISCAL YEAR:	2003-2004
ESR REFERENCE #:	6.3.5 Monitoring	SPECIFICATION TYPE:	R

I. WORK TO BE DONE

A. General Description: Conduct monitoring for noxious weed infestations and of seeding treatment in first year following treatment to determine success of rehabilitation efforts on the Campbell Lake Fire. Weed monitoring will include mapping to determine weed abundance and spread, seeding success will be monitored to assess establishment of native grasses, but also to evaluate reseeding as a method to control weed spread.

B. Location (Suitable) Sites: Invasive weeds, including perennial pepperweed (*Lepidium latifolium*), tumble mustard (*Sisymbrium altissimum*), cheatgrass (*Bromus tectorum*), Russian knapweed (*Acroptilon repens*), kochia (*kochia scoparia*), and Russian thistle (*Salsola kali*), are located either in the fire area, or adjacent to the fire area. These upland weeds have the potential to invade any disturbed location. The entire fire area should be monitored for noxious weeds, but particular emphasis should be placed on the suppression vehicle tracks and areas that burned particularly hot. The 50 acres within CNWR and seeded buffer will be monitored.

C. Design/Construction Specification(s): Four transects shall be established in areas representing the range of major plant community types and important environmental variables (topographic variations, soil types, etc.) within the seeded areas.

1. Sampling methodology will determine native species composition and percent cover, seedling abundance, and presence and abundance of invasive non-native plants.
2. Additional observations will be documented to record other factors such as herbivory, surface erosion, etc.
3. Sampling will be conducted during May-June of the first year to capture initial establishment, and during September (at the end of summer drought) to capture ultimate first year survival.
4. A minimum seedling establishment of 4 plants of bunchgrass species per square meter should be present in seeded areas at the end of the first growing season. If seedling establishment does not meet this requirement then a second application of seed should be applied.
5. Abundance of cheatgrass or other invasive non-native species exceeding 10% cover during the first year following seeding will trigger appropriate action to control the invasives. If intensive mechanical or herbicide treatment of invasive species is indicated, the effected area may require reseeding after treatment.

D. Purpose of Treatment Specification: To insure establishment of planted and seeded species for maintaining ecosystem structure and function as native wildlife and plant habitat, for prevention of noxious weed establishment, and to facilitate the vegetative recovery to native shrub-steppe plant communities.

E. Treatment Effectiveness Monitoring: See above.

II. LABOR, MATERIALS AND OTHER COST

PERSONNEL SERVICES (Grade @ cost/hour X # hours X fiscal year = cost/item) Do not include contract personnel costs here - see contract services below	COST/ITEM
GS-7 @ \$25/hour x 8 hours x 1 fiscal year	\$200
TOTAL PERSONNEL SERVICE COST	\$200
EQUIPMENT PURCHASE, LEASE OR RENTAL (item @ cost/hour or day X #hours or days X fiscal year = cost) Do not include contract personnel costs here -see contract services below	COST/ITEM
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	
MATERIALS AND SUPPLIES (item @ cost/each X quantity x fiscal year = cost)	COST/ITEM
TOTAL MATERIALS AND SUPPLY COST	

COST/ITEM	
TRAVEL COST (Personnel @ rate X round trips X fiscal year = cost)	
TOTAL TRAVEL COST	

COST/ITEM	
CONTRACT COST (Labor, equipment, and travel @ cost/hr. X hrs. X fiscal year = cost)	
TOTAL CONTRACT COST	

III. SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
FY-1	acres	\$ 4.00	50	\$200	ES	P
FY-2						
FY-3						
TOTAL	acres	\$ 4.00	50	\$200	ES	P

FUNDING SOURCES:

F = Fire Suppression Account

ESR = Emergency Stabilization & Rehabilitation

OP/O = Agency Operating or Other Account

EWP = Emergency Watershed Protection (NRCS)

SPECIFICATION TYPE

ES = Emergency Stabilization

R = Rehabilitation

FS = Fire Suppression

METHODS FOR COMPLETION:

P = Agency Personnel Services

C = Contract

EFC = Emergency Fire Contract

FC = Crew Labor Assigned to Fire

IV. SOURCE OF COST ESTIMATE

1. Estimate obtained from 2 - 3 independent contractual sources	
2. Documented cost figures from similar project work obtained from local agency resources	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimate based upon government wage rates and materials cost.	P
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services

M = Materials/Supplies

T = Travel

C = Contract

F = Fire Suppression

V. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN REPORT

List relevant documentation and cross-references within ESR Plan: Refer to Vegetation Assessment- Appendix I
--

PART G - POST-REHABILITATION REQUIREMENT¹

The following are post-rehabilitation, implementation, operation, maintenance, monitoring, and evaluation actions beyond one year to ensure the effectiveness of initial investments. Estimated annual cost and funding source is indicated.

Emergency Stabilization

1. Continue effectiveness monitoring of treatments- (\$200-OP/O)
2. Continue noxious weed monitoring and treatment(\$200-OP/O)

¹ Non-9262 funding

APPENDIX I - ESR BURNED AREA ASSESSMENT REPORTS

- " Vegetation Resource Assessment
- " Cultural Resource Damage Assessment
- " Suppression/Operations Assessment

VEGETATION RESOURCE ASSESSMENT

I. OBJECTIVES

- * □ Evaluate and assess fire and suppression impacts to vegetative resources and identify values at risk associated with vegetative losses.
- * □ Determine rehabilitation and monitoring needs supported by specifications to aid in vegetative recovery and soil stabilization.
- * □ Evaluate potentials for invasive species encroachment into native plant communities within the fire area.
- * □ Provide management recommendations to assist in vegetative recovery, watershed stabilization, site productivity and species habitat protection and rehabilitation.

II. ISSUES

- * □ Suppression effects and short/long-term impacts to plant communities and vegetative resources within the Campbell Lake Fire on federal and private lands.
- * □ Protection and enhancement of other resource values including site productivity, wildlife habitat, vegetative resources, cultural resources and watershed stability.
- * □ Management strategies which provide for the stabilization, natural regeneration and recovery of impacted areas.
- * □ Monitoring of the planting/seeding effectiveness of rehabilitation efforts.
- * □ Monitoring of impacted lands for the early detection and control of invasive and noxious weed species.

III. OBSERVATIONS

This report identifies and addresses known and potential impacts to vegetative resources within the Campbell Lake Fire area, Columbia National Wildlife Refuge (CNWR) near Othello, Washington.

The burned area consists of approximately 260 acres of contiguous area, 47 acres of which were within the boundaries of the refuge. Vegetative resources provide forage and cover for a variety of wildlife species, aesthetic values, watershed stability, and biologically diverse plant associations. The particular area is near the Potholes Canal. Much of the refuge is within the Drumheller Channels National Natural Landmark (NNL) and is an Important Bird Area (IBA). Findings and recommendations contained within this assessment are based upon field reconnaissance of the fire area, interviews with local resource specialists and review of relevant documents and literature. This report will detail the known damage to the vegetative resources; will discuss re-vegetation processes and future monitoring criteria, and will outline management considerations for recovery of vegetative resources.

A. Reconnaissance Methodology and Results

Ground reconnaissance was conducted on August 8, 2003. Photographs were taken and are in the photo documentation section of this plan. The fire burned continuously over all but rocky areas, and vegetation resources were significantly reduced over the remainder of the fire area. The standing biomass of shrubs, grasses, forbs, were 70- 100 % consumed over approximately 90% of the fire area.

Literature available at the refuge headquarters relating to vegetation resources in the area was consulted for baseline data relating to pre-fire conditions on the burned area.

1. Vegetation:

The Campbell Lake Fire burned approximately 260 acres of federal and private lands near Campbell Lake and the Potholes Canal along the east boundary of CNWR. The refuge was established in 1944 as part of the Columbia Basin Irrigation Project. Most of the refuge lies within the Drumheller Channels NNL, designated in 1986 for its geologic features. IBA designation came in 2000. Primary plant communities impacted by the fire included the following plant associations:

Big Sagebrush/Sandberg's bluegrass: This community type is characterized by big sagebrush, Sandberg's bluegrass, and low forb diversity. The plant community type is generally confined to locations too dry for bluebunch wheatgrass on soil that is shallower or finer-textured than is typical for needle-and-thread

associations.

Big Sagebrush/Needle-and thread: Big sagebrush is the dominant shrub. Deeper soils where moisture accumulates can include areas of Basin wildrye (*Elymus cinereus*). Where intermixed with bluebunch wheatgrass, needle-and-thread is thought to increase with disturbance.

Big Sagebrush/Cheatgrass: This community is primarily composed of Big sagebrush with an understory dominated by cheatgrass (*Bromus tectorum*). Past heavy grazing may have eliminated or severely reduce bluebunch wheatgrass.

The above list of plant communities is a very simplified accounting of the major plant communities that have been impacted by the Campbell Lake Fire area. Species diversity within each of the major community types has been altered in some areas due to the activities of neo-European people that entered the region beginning 200 years ago. In more recent history, alien plants were introduced and established a foot-hold in the shrub-steppe communities with the advent of livestock grazing in the mid-1800's and through agricultural cultivation and urbanization later in the century.

Vegetation within this area has also been altered through the establishment of cheatgrass within sage communities and the shortening of the natural fire return interval. Historically, fire return intervals were between 50-100 years in the shrub-steppe region. Fires burned in a mosaic fashion across the landscape leaving many healthy remnant stands of bunchgrass and sage. The mosaic fire patterns allowed for the survival of healthy sage communities and habitat for wildlife species.

Within the Big sage brush community, cheatgrass provided ladder fuels for fire to quickly spread into and throughout these stands. In areas where native bunchgrass dominated the understory, fire impacts to some shrub stands were greatly reduced.

2. Vegetation/Structural Impacts

Vegetation resources were directly impacted by the Campbell Lake Fire and by suppression tactics utilized to control the fire. Documented impacts to vegetation resulted from:

- a) Impacts to native microbiotic crust, shrub and grass species during line construction, suppression and mop-up activities.
- b) Vegetation losses due to fire intensity. Most grassland communities were completely consumed and/or scorched. Some additional loss is expected within remaining shrub communities.
- c) Loss of the organic litter layer on approximately 90 percent of the fire.
- d) Damage to structural improvements, (e.g. boundary fence) by suppression actions and fire intensity. Fences were cut or damaged.

B. Vegetation Recovery

Revegetation of the fire area through natural processes will take between 10-25 years to visually represent pre-fire conditions. However, due to the presence of non-native plants and noxious weeds, the site is at risk of becoming dominated by non-native annuals such as cheatgrass and tumbleweed. Without active restoration it is unlikely that the site will recover to its pre-fire characteristics. Some impacted plant communities will take decades to re-establish back to pre-fire levels. Most research indicates that fire will eliminate sagebrush for at least several years. Because big sagebrush reproduces by seed and not by sprouting, recovery can be very prolonged on many sites. In most cases, sagebrush eventually returns, but is dependant on the slow process of wind carrying seed in from a distant source. Concern has been expressed about the re-establishment of critical sagebrush communities for agency listed T&E wildlife habitat and the protection of the ecological integrity of the shrub-steppe community.

Other direct impacts to vegetation include the loss of shrub lands previously occupied by denser vegetation which are now open and traversable. This is a key factor in vulnerability of the Washington ground squirrel, which are found in the general area. Cattle grazing on adjacent private lands will further impact microbiotic crusts and vegetative recovery where fences are weakened.

1. Noxious Weed Establishment

Perennial pepperweed (*Lepidium latifolium*), Russian knapweed (*Acroptilon repens*), cheatgrass (*Bromus tectorum*), Tumble mustard (*Sisymbrium altissimum*), kochia (*kochia scoparia*), and Russian thistle (*Salsola kali*) infestations are located within or near the fire area. These noxious weeds spread vigorously, and are a threat to the burned area.

2. Revegetation

Revegetation in the area should be conducted in order to protect soils in the area, to reduce the change of further erosion and degradation. Additionally, because the site is at risk from non-native species and noxious weeds, revegetation must be completed to protect the plant community and ecology of the site. As stated above, it is unlikely that the fire area will recover without some intervention and active restoration effort.

IV. RECOMMENDATIONS

A. Emergency Stabilization

The following recommendations are offered to assist in the timely recovery of the Campbell Lake Fire:

#1-Suppression line Rehabilitation- Harrow and lay straw on newly tracked areas. Reseed all disturbed areas resulting from suppression actions with native seed species to protect the ecological integrity of the area (these are included under the overall area seeding for ecological stabilization.)

#2- Noxious Weed- Invasive Species Control- Control noxious weed infestation remaining within the Campbell Lake Fire area utilizing integrated pest management techniques.

#3- Ecological Stabilization- Native Grass Seeding- Apply native seed mix in burned area to stabilize ecological integrity of native shrub steppe community, prevent invasion by noxious weeds and non-native species, and to limit erosion and stabilize soils.

#4- Monitor Noxious weed and Revegetation Effectiveness- Monitor for noxious weed infestations and of seeding treatment in first year following native grass seed planting to determine success of revegetation efforts and to determine if additional treatments are required to protect and maintain ecological integrity of the site.

V. References:

Columbia NWR Refuge Management Plan- January 1986

Columbia NWR Habitat Review- March 2000

Fire Effects Information System (FEIS)- National Interagency Fire Center Web Site

National Wildlife Refuge System Improvement Act of 1997.

USFWS. Fire Management Handbook. Emergency Fire Rehabilitation Standards.

Steven O. Link et al. 1990. Response of a Shrub-Steppe Ecosystem to Fire: Soil Water and Vegetational Change.

K M Cassidy, et.al. 1997. Washington State GAP Analysis - Final Report. Washington Cooperative F&W Research Unit

Randy Hill- Columbia National Wildlife Refuge 509-488-2668

CULTURAL RESOURCES DAMAGE ASSESSMENT

Jenna Gaston

Sent by: Jeanette Gaston

09/10/03 06:04 PM

To: Rob Larranaga/CNWR/R1/FWS/DOI@FWS

Subject: Re: Campbell Lake Fire (2)

hi Rob

Further investigation in my mind would include historical record checking, talking to people etc. and possibly additional field work. Will there be a BAER plan for this fire? I would think, since the fire burned across a portion of the road, and the fire may have disturbed it, that the research could be done as part of that. I could potentially do it. I will not send other written documentation of the work I did at this point unless you need something. Since I did not have anything but a verbal description of the project (to rehab the fire road) I'm assuming that the old road I've mentioned will not be impacted. There were no other resources in the project (fire road) area. You may proceed with the project.

Rob Larranaga

09/08/2003 03:19 PM

To: Jenna Gaston/ARID/R1/FWS/DOI@FWS

cc: Michael Muehlbauer/MOBILE/R1/FWS/DOI@FWS, Bob Flores/CNWR/R1/FWS/DOI@FWS

Subject: Re: Campbell Lake Fire (2)

Hello Jenna:

Thank you for your help. I will get with Mike and make sure that there will be no impact to the road that you identified. Can you let me know what "further level of investigation" is needed for this potential historic road, and if you are interested in conducting it?

Mike will submit an RCRC to you upon his return from his current fire assignment. Should we expect a written synopsis for your time, or does the below email suffice as documentation of no significant findings. Thank you,

Rob Larranaga
Deputy Project Leader
Columbia NWR
P.O. Drawer F
Othello, WA 99344
(509) 488-2668 FAX (509) 488-0705
Rob_Larranaga@fws.gov

Jenna Gaston
Sent by: Jeanette Gaston

09/05/03 02:30 PM

To: Rob Larranaga/CNWR/R1/FWS/DOI@FWS

Subject: Campbell Lake Fire

Hi Rob

Just wanted to put something out in writing regarding my survey for you on the fire last week. I walked all the proposed road areas to be rehabed as per instructions from Mike Muehlbauer. I reported to him when I completed the survey that there is a potential historic road which needs further investigation. It is the road segment on the topo map in Sec 34 that the firefighters tried to locate just E of the burn. It should not be impacted by the proposed road work anyway but until it can be researched it would be best to avoid using it or anything.

Also I need you to complete and submit an RCRC form for the paperwork for the file. Thanks for your help.

Campbell Lake Wildfire DI-1202 Report

On 7/26/2003 at 1430 hours the Columbia Fire Crew received a report of a wildlife from MACC near Campbell Lake. Campbell Lake is situated directly adjacent to Columbia NWR lands. The Columbia fire crew responded with both E-101 and E-102 with five personnel between the two engines. At this time the column of smoke was visible from the CNWR fire cache.

En route to the wildfire E-101 encountered a blue GMC pickup with license plate: A81525H. This individual informed us that the fire was ignited by his catalytic converter and could show us the quickest route into the fire.

Upon reaching the fire Columbia engines 101 and 102 were the first on scene. An initial size-up of 2-3 acres was given to Hanford Dispatch. A request was made for more resources from Adams County 5. A request was also made at this time for an additional water tender and Type 6 engine from Grant County 11.

Weather at the fire scene upon arrival were: Dry bulb 98, RH 19%, winds SE 4-6 and clear skies. Suppression was hampered initially by a wetland, wire fences and rocky terrain.

Resources that responded: Columbia NWR E-101, 102, Monument E-61, Grant Co. #11 (1125, 1131, 1134, 1139, 1100), Adams 5 (5051, 5055, 5053, 5054, 48, 45, 5056), Grant County #4 (451, 452, 473). A private SEAT responded as well and performed water drops on Southwest flank of the fire.

All county resources were released with the exception of Columbia 101, 102, and Monument 61 at 1800 hours.

Two Type II crews were ordered for the next day to perform mop-up operations and secure the fireline. These crews were Mountain Forestry and North Pacific.

Michael Muehlbauer

Campbell Lake Wildfire Investigative Report

On 7/26/2003 at 1430 hours the Columbia Fire Crew received a report of a wildfire from MACC near Campbell Lake. Campbell Lake is situated directly adjacent to Columbia NWR lands on the East side of the Refuge. The Columbia fire crew responded with both E-101 and E-102 with five personnel between the two engines. At this time the column of smoke was visible from the CNWR fire cache.

En route to the wildfire E-101 encountered a blue, year 2000 GMC pickup with license plate: A81525H.

Officer Crowder from Adams County Sheriff's Department responded to the incident upon our request. Officer Crowder met with Michael Muehlbauer and John Wood at the Columbia NWR fire cache later that evening at 1800 hours. At this time Crowder ran the license plate and informed us of the name and address of the person driving the GMC pickup. The individual driving the pickup's name is John Brangwin. Brangwin's address is P.O. Box 4378, 330 King St., Wenatchee Washington, 98801.

Brangwin told fire officials that the fire was started by his catalytic converter on his pickup. His pickup was parked beside Campbell Lake in tall cheat grass. He also informed officials that he had attempted to extinguish the wildfire with his fire extinguisher but didn't have much luck.

Brangwin leases the private property on and around Campbell Lake. At the time of this incident, it appears that he and his associates were working on a duck blind close to where the fire ignited.

The Campbell Lake wildfire consumed a total of 260 acres, 47 of which were on Columbia NWR lands. The fire burned through sage brush, rabbit brush, cheat grass, and grease wood. Several sections of fence were cut by the county fire department units that will need to be repaired.

Michael Muehlbauer

APPENDIX II - ENVIRONMENTAL COMPLIANCE

ENVIRONMENTAL COMPLIANCE CONSIDERATIONS, DOCUMENTATION, AND CONSULTATIONS

Campbell Lake Fire Burned Area Emergency Rehabilitation Plan

FEDERAL, STATE, AND PRIVATE LANDS ENVIRONMENTAL COMPLIANCE RESPONSIBILITIES

All projects proposed in the Campbell Lake Fire Burned Area Emergency Rehabilitation (BAER) Plan that are prescribed, funded, or implemented by Federal agencies on Federal, State, or private lands are subject to compliance with the National Environmental Policy Act (NEPA) in accordance with the guidelines provided by the Council on Environmental Quality (CEQ) Regulations (40 CFR 1500-1508); Department of the Interior Manual, Part 516, U.S. Fish and Wildlife Service, NEPA Guidelines, Part 516 DM 6, Appendix 1. This Appendix documents the BAER Team considerations of NEPA compliance requirements for prescribed rehabilitation and monitoring actions described in this plan for all jurisdictions affected by the Campbell Lake Fire burned area emergency rehabilitation.

B. RELATED PLANS AND CUMULATIVE IMPACTS ANALYSIS

The Columbia National Wildlife Refuge Management Plan and Wildland Fire Management Plan: The BAER Team leader reviewed the Columbia National Wildlife Refuge Management Plan (1986) and Fire Management Plan (2001) and Environmental Assessment (2002) and determined that actions proposed in the Campbell Lake Fire BAER Plan within the boundary of the Columbia National Wildlife refuge are consistent with the management objectives established in the Management Plan. The EA incorporates the management plan by reference. The EA/management plan specifically addresses suppression lines and provides NEPA compliance for suppression line rehabilitation under NEPA.

Cumulative Impact Analysis: Cumulative effects are the environmental impacts resulting from the incremental impacts of a proposed action when added to other past, present, and reasonably foreseeable future actions, both Federal and non-Federal. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. The emergency protection and rehabilitation treatments for areas affected by the Campbell Lake Fire, as proposed in the Campbell Lake Fire BAER Plan, do not result in an intensity of impact (i.e. major ground disturbance, etc.) that would cumulatively constitute a significant impact on the quality of the environment. The treatments are consistent with the above jurisdictional management plans and associated environmental compliance documents and categorical exclusions listed below.

C. APPLICABLE AND RELEVANT CATEGORICAL EXCLUSIONS

U.S. Fish and Wildlife Service: The individual actions proposed in this plan for Columbia National Wildlife Refuge are Categorically Excluded from further environmental analysis as provided for in the Department of the Interior Manual Part 516 and U.S. Fish and Wildlife Service, NEPA Guidelines, Part 516 DM 6, Appendix 1. All applicable and relevant Department and Agency Categorical Exclusions are listed below. Department exceptions (516) DM 2.3 do not apply to any of the individual actions proposed. Categorical Exclusion decisions were made with consideration given to the results of required emergency consultations completed by the BAER Team and documented in Section E below.

Applicable Departmental Categorical Exclusions

516 DM2 App. 2, 1.6	Non-destructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research and monitoring activities.
516 DM 6 App. 4.4 A	Operations, maintenance, and replacement of existing facilities (includes road maintenance).

516 DM 6 App. 4.4 L(5)	Emergency road repairs under 23 U.S.C. 125.
516 DM 6 App. 7.4 C(3)	Routine maintenance and repairs to non-historic structures, facilities, utilities, grounds and trails.
516 DM 6 App. 7.4 C(19)	Landscaping and landscape maintenance in previously disturbed or developed areas.

Applicable U.S. Fish and Wildlife Service Categorical Exclusions

516 DM 6 App. 1.4B (1)	Research, inventory, and information collection activities directly related to the conservation of fish and wildlife resources which involve negligible animal mortality of habitat destruction, no introduction of contaminants, or no introduction of organisms not indigenous to the affected ecosystem.
516 DM 6 App. 1.4B (3) i	The installation of fences.
516 DM 6 App. 1.4B (3) iii	The planting of seeds or seedlings and other minor revegetation actions.
516 DM 6 App. 1.4B (3) v	The development of limited access for routine maintenance and management purposes.
516 DM 6 App. 1.4B (5)	Fire management activities, including prevention and restoration measures, when conducted in accordance with Departmental and Service procedures. 516 DM 6 App. 1.4B (6). The reintroduction or supplementation (e.g. stocking) of native, formerly native, or established species into suitable habitat within their historic or established range, where no or negligible environmental disturbances are anticipated.

D. STATEMENT OF COMPLIANCE FOR THE Campbell Lake Fire BURNED AREA EMERGENCY REHABILITATION PLAN

This section documents consideration given to the requirements of specific environmental laws in the development of the Campbell Lake Fire BAER Plan. Specific consultations initiated or completed during development and implementation of this plan are also documented. The following executive orders and legislative acts have been reviewed as they apply to the Campbell Lake Fire BAER Plan:

1. National Historic Preservation Act (NHPA). The BAER Team archeologist has initiated necessary consultation with the Washington State Historic Preservation Office (SHPO) regarding treatments proposed in the Campbell Lake Fire BAER Plan.
2. Executive Order 11988. Floodplain Management. No treatments are proposed within the 100-year floodplain.
3. Executive Order 11990. Protection of Wetlands. No treatments are proposed within jurisdictional wetlands.
4. Executive Order 12372. Intergovernmental Review. Coordination and consultation is ongoing with affected Tribes, Federal, State, and local agencies. A copy of the BAER Plan will be disseminated to all affected agencies.
5. Executive Order 12892. Federal Actions to Address Environmental Justice in Minority and Low-Income Populations. All Federal actions must address and identify, as appropriate, disproportionately high and adverse human health or low-income populations, and Indian Tribes in the United States. The BAER Team Environmental Protection Specialist has determined that the actions proposed in this plan will result in no adverse human health or environmental effects for minority or low-income populations and Indian Tribes.
6. Endangered Species Act. The BAER Team wildlife biologist/vegetation specialist consulted with the Service and Washington Department of Fish and Wildlife regarding actions proposed in this plan and potential effects on Federally and State listed species. Individual agencies are responsible for continued consultations during plan implementation.

7. There are no known contaminated sites on other jurisdictions affected by the Campbell Lake Fire.
8. Clean Water Act. No treatments are proposed within jurisdictional wetlands.
9. Clean Air Act. Federal Ambient Air Quality Primary and Secondary Standards are provided by the National Ambient Air Quality Standards, as established by the U.S. Environmental Protection Agency (EPA) (Clean Air Act, 42 U.S.C. 7470, et seq., as amended). The BAER Team leader has determined that treatments prescribed in the Campbell Lake burned area will have short-term minor impacts to air quality that would not differ significantly from routine land use practices for the area. Long-term, treatments proposed in this plan would be expected to have a beneficial impact to air quality through stabilization of ash and soils within the Campbell Lake Fire burned area.

E. CONSULTATIONS

Ecological Services

Gregg Kurz, Fish and Wildlife Biologist, Central Washington Field Office

NEPA Checklist: If any of the following exception applies, the ESR Plan cannot be Categorically Excluded and an Environmental Assessment (EA) is required.

(Yes) (No)

- ☐ (X) Adversely affect Public Health and Safety
- ☐ (X) Adversely affect historic or cultural resources, wilderness, wild and scenic rivers aquifers, prime farmlands, wetlands, floodplains, ecologically critical areas, or Natural Landmarks.
- ☐ (X) Have highly controversial environmental effects.
- ☐ (X) Have highly uncertain environmental effects or involve unique or unknown environmental risks.
- ☐ (X) Establish a precedent resulting in significant environmental effects.
- ☐ (X) Relates to other actions with individually insignificant but cumulatively significant environmental effects.
- ☐ (X) Adversely effects properties listed or eligible for listing in the National Register of Historic Places
- ☐ (X) Adversely affect a species listed or proposed to be listed as Threatened or Endangered.
- ☐ (X) Threaten to violate any laws or requirements imposed for the "protection of the environment" such as Executive Order 11988 (Floodplain Management) or Executive Order 11990 (Protection of Wetlands).

National Historic Preservation Act

Ground Disturbance:

- ☐ None
- ☒ Ground disturbance would occur and an archeologist survey, required under section 110 of the NHPA will be prepared. A report will be prepared as specified by the ESR Plan.

A NHPA Clearance Form:

- () Is required because the project may have affected a site that is eligible or on the national register. The clearance form is attached. SHPO has been consulted under Section 106 (see Cultural Resource Assessment, Appendix I).
- (X) Is not required because the ESR Plan has no potential to affect cultural resources (initial of cultural resource specialist).

Other Requirements

(Yes) (No)

- () (X) Does the ESR Plan have potential to affect any Native American uses? If so, consultation with affiliated tribes is needed.
- (X) () Are any toxic chemicals, including pesticides or treated wood, proposed for use? If so, local agency integrated pest management specialists must be consulted.

I have reviewed the proposals in the Campbell Lake Fire Burned Area Emergency Stabilization and Rehabilitation Plan in accordance with the criteria above and have determined that the proposed actions would not involve any significant environmental effect. Therefore it is categorically excluded from further environmental (NEPA) review and documentation. ESR Team technical specialists have completed necessary coordination and consultation to insure compliance with the National Historic Preservation Act, Endangered Species Act, Clean Water Act and other Federal, State and local environment review requirements.

ESR Team Biologist

Date

Project Leader, Columbia National Wildlife Refuge

Date